

GLADIOLUS IMBRICATUS, Linn.

Mr. Borrer has sent to me specimens of the above-named plant, found by the Rev. W. H. Lucas in the New Forest, Hampshire, in 1856. Mr. Borrer says, "I saw the plant in two places [in June 1857], about two miles apart, and each of them at least a mile from any house. One is on the road from Lyndhurst to Balderwood, where it grows in some quantity on both sides of the road; the other in the heart of the Forest, S.E. from the turnpike, two miles from Lyndhurst on the Christchurch road. Here it abounds for about a quarter of a mile, with short intervals. In both places it grows scattered on dry ground amongst *Pteris*, which overtops it before it comes into flower." "The situation is such in both places, that I should suppose no one would suspect that the plant is other than indigenous; as truly as its companion *Habenaria bifolia*." This seems to be a very interesting addition to our flora, which has escaped notice from its being hidden in the masses of brakes.—C. C. B.

Notes on some new and rare Diatomaceæ from the Stomachs of Ascidia. By GEORGE NORMAN, Esq.

Being engaged some time ago in examining dredged oyster-shells for Diatomaceæ, I discovered on the surface of one of the shells a cluster of semi-transparent gelatinous bodies of a yellowish-green colour, of which the shape, however, was not uniform, owing perhaps to their being dead and flaccid. In size they approached small hazel-nuts. These I take to be Ascidiæ of some species, as they were apparently enveloped in an outer mantle or skin of somewhat tough consistency. By cutting through this mantle and towards the centre of the body, a large stomach was exposed, quite distended with what appeared to be brown mud. On examining this under the microscope I was delighted to find it almost entirely composed of Diatomaceæ, still quite fresh and full of chlorophyll. The Diatoms were mostly uncommon forms: the most conspicuous of those which occurred in the first I opened were, *Coscinodiscus concinnus* (in great numbers and of unusually large size), *Pleurosigma lanceolatum*, n. s., *Eupodiscus crassus* and *Ralfsii*, *Eucampia zodiacus*, and a very curious tubular *Rhizoselenia*, which Mr. Brightwell has named *Rhizoselenia styliformis*.

Since then I have examined many Ascidiæ from the same source, and have never failed in any instance in obtaining Diatomaceæ in abundance; these have mostly consisted of species which, from their occurring in deep water, are somewhat uncommon and difficult to obtain, unless the collector be furnished with an expensive dredging apparatus.

Some of the forms are of great rarity, and others are even quite new. I would, therefore, call the attention of all diatomists to this source as an easy and inexpensive means of obtaining good and rare forms, in a comparatively clean state and without much trouble, as the trawling-boats are constantly bringing to market the large

dredged oysters, which are frequently covered with Ascidiæ. The locality whence my oysters were obtained is some twenty or thirty miles from the Yorkshire coast, a little to the north of the river Humber, and is known as the "Silver Pit." I annex a list of the species hitherto detected in merely four gatherings, and this will serve to show what may be expected when Ascidiæ are examined from other and possibly more favourable localities. The letter A. preceding the name denotes that the species occurs abundantly, F. that it occurs occasionally (though less frequent than the first), and R. that it occurs rarely—perhaps, for instance, one or two specimens in a slide.

List of Species.

- F. *Eucampia zodiacus*.
 F. *Pinnularia distans*.
 A. *Pleurosigma lanceolatum*, n. s.; resembling *P. angulatum*, but has much coarser striæ, the valve nearly straight, the central line much curved, and with a faint depression running across the centre of the valve. The colour of the dry valve is the same as in *Pl. transversale*. This form is constant, and occurs in most gatherings from deep water.
 F. *Pleurosigma prolongatum*.
 R. *Pleurosigma*, small form, with very acute extremities.
 R. *Pl. transversale*.
 R. *Pl. fasciola*.
 A. *Coscinodiscus concinnus*, very large.
 F. *C. perforatus*.
 A. *C. excentricus*, very fine.
 F. *C. radiatus*.
 A. *Eupodiscus crassus*, fine.
 F. *E. Ralfsii*.
 R. *E. sculptus*.
 R. *E. argus*, in fragments.
 R. *Eupodiscus*, new species, with cellular markings like a *Coscinodiscus*, and a single process near the margin.
 R. *Amphiprora didyma*?
 R. *Surirella fastuosa*.
 F. *Doryphora amphicerus*.
 F. *Doryphora*, sp.?, with parallel moniliform striæ.
 A. *Actinocyclus undulatus*, fine.
 R. ? *Actinocyclus*, sp. without rays.
- A. *Rhizoselenia styliiformis*, n. s.
 F. *Rhizoselenia*, small species, with ends produced into a long, slender, hair-like filament.
 F. *Rhizoselenia*, a curious and beautiful species, apparently new, with feather- or scale-like markings.
 F. *Biddulphia turgida*, not entire.
 A. *B. Baillyii*, fine.
 F. *B. rhombus*.
 A. *B. aurita*, in filaments.
 F. *Chatoceras Wighamii*.
 F. *Chatoceras*, apparently two more species.
 R. *Nitzschia Closterium*?
 R. *N. lanceolata*?
 F. *Orthosira marina*.
 R. ? *Orthosira*, sp.
 A. ? *Asterionella*, two species.
 R. *Podosira maculata*.
 A. ? *Melosira*, sp.
 F. *Stephanopyxis*, species; beautiful form with cellular structure, and furnished with clubbed or forked horns at the ends of the valves; occurs in filaments of four to five frustules.
 F. *Stauroneis pulchella*.
 R. *Triceratium favus*, fragments.
 R. *T. striolatum*.
 R. ? *Triceratium*, curious form with a star-like marking in the centre of the valve.
 F. ? *Melosira*, small form with longitudinal markings.
 R. *Navicula Henedyii*.
 R. *N. lyra*.
 A. ? *Himantidium*, sp.